

Pak

CRF Errors Corrected by the STIC System

Branch

Serial Number:

09/039,927A

ENTERED

CRF Processing Date: 9/8/2000

Edited by:

Verified by:

STIC staff

RECEIVED

SEP 14 2000

TECH CENTER 1500/2900

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☒ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

M. Pak

1646

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/039,927A

DATE: 09/08/2000

TIME: 12:15:07

Input Set : A:\A63098.app
Output Set : N:\CRF3\09082000\I039927A.raw

**Does Not Comply
Corrected Diskette Needed**

SEQUENCE LISTING

4 (1) GENERAL INFORMATION:
6 (i) APPLICANT: Lester, Henry A.
7 Davidson, Norman
8 Kofuji, Paulo
10 (ii) TITLE OF INVENTION: INWARD RECTIFIER, G-PROTEIN ACTIVATED,
11 MAMMALIAN, POTASSIUM CHANNELS AND USES THEREOF
13 (iii) NUMBER OF SEQUENCES: 6
15 (iv) CORRESPONDENCE ADDRESS:
16 (A) ADDRESSEE: Flehr Hohbach Test Albritton & Herbert LLP
17 (B) STREET: Four Embarcadero Center, Suite 3400
18 (C) CITY: San Francisco
19 (D) STATE: California
20 (E) COUNTRY: United States
21 (F) ZIP: 94111-4187
23 (v) COMPUTER READABLE FORM:
24 (A) MEDIUM TYPE: Floppy disk
25 (B) COMPUTER: IBM PC compatible
26 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
27 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
29 (vi) CURRENT APPLICATION DATA:
C--> 30 (A) APPLICATION NUMBER: US/09/039,927A
C--> 31 (B) FILING DATE: 16-Mar-1998
32 (C) CLASSIFICATION:
38 (vii) PRIOR APPLICATION DATA:
35 (A) APPLICATION NUMBER: US 08/066,371
36 (B) FILING DATE: 21-MAR-1993
39 (A) APPLICATION NUMBER: US 08/614,801
40 (B) FILING DATE: 07-MAR-1996
42 (viii) ATTORNEY/AGENT INFORMATION:
43 (A) NAME: Trecartin, Richard F.
44 (B) REGISTRATION NUMBER: 31,801
45 (C) REFERENCE/DOCKET NUMBER: A-63098-1/RFT
47 (ix) TELECOMMUNICATION INFORMATION:
48 (A) TELEPHONE: (415) 781-1989
49 (B) TELEFAX: (415) 398-3249
50 (C) TELEX: 910 277299

ERRORED SEQUENCES

470 (2) INFORMATION FOR SEQ ID NO: 4:
472 (i) SEQUENCE CHARACTERISTICS:
473 (A) LENGTH: 414 amino acids
474 (B) TYPE: amino acid
475 (D) TOPOLOGY: linear
477 (ii) MOLECULE TYPE: protein

RAW SEQUENCE LISTING DATE: 09/08/2000
 PATENT APPLICATION: US/09/039,927A TIME: 12:15:07

Input Set : A:\A63098.app
 Output Set: N:\CRF3\09082000\I039927A.raw

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479      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
481      Met Thr Met Ala Lys Leu Thr Glu Ser Met Thr Asn Val Leu Glu Gly
482      1          5          10          15
484      Asp Ser Met Asp Gln Asp Val Glu Ser Pro Val Ala Ile His Gln Pro
485      20          25          30
487      Lys Leu Pro Lys Gln Ala Arg Asp Leu Pro Arg His Ile Ser Arg
488      35          40          45
490      Asp Arg Thr Lys Arg Lys Ile Gln Arg Tyr Val Arg Lys Asp Gly Lys
491      50          55          60
493      Cys Asn Val His His Gly Asn Val Arg Glu Thr Tyr Arg Tyr Leu Thr
494      65          70          75          80
496      Asp Ile Phe Thr Thr Leu Val Asp Leu Lys Trp Arg Phe Asn Leu Leu
497      85          90          95
499      Ile Phe Val Met Val Tyr Thr Val Thr Trp Leu Phe Phe Gly Met Ile,
500      100         105         110
502      Trp Trp Leu Ile Ala Tyr Ile Arg Gly Asp Met Asp His Ile Glu Asp
E--> 503      115 115      120 120      125 125
505      Pro Ser Trp Thr Pro Cys Val Thr Asn Leu Asn Gly Phe Val Ser Ala
506      130         135         140
508      Phe Leu Phe Ser Ile Glu Thr Glu Thr Thr Ile Gly Tyr Gly Tyr Arg
E--> 509      145         150         155         160
511      Val Ile Thr Asp Lys Cys Pro Glu Gly Ile Ile Leu Leu Ile Gln
E--> 512      165         170         175
514      Ser Val Leu Gly Ser Ile Val Asn Ala Phe Met Val Gly Cys Met Phe
E--> 515      180         185         190
517      Val Lys Ile Ser Gln Pro Lys Lys Arg Ala Glu Thr Leu Val Phe Ser
E--> 518      195         200         205
520      Thr His Ala Val Ile Ser Met Arg Asp Gly Lys Leu Cys Leu Met Phe
E--> 521      210         215         220
523      Arg Val Gly Asp Leu Arg Asn Ser His Ile Val Glu Ala Ser Ile Arg
E--> 524      225         230         235         240
526      Ala Lys Leu Ile Lys Ser Lys Gln Thr Ser Glu Gly Glu Phe Ile Pro
E--> 527      245         250         255
529      Leu Asn Gln Ser Asp Ile Asn Val Gly Tyr Tyr Thr Gly Asp Asp Arg
E--> 530      260         265         270
532      Leu Phe Leu Val Ser Pro Leu Ile Ile Ser His Glu Ile Asn Gln Gln
E--> 533      275         280         285
535      Ser Pro Phe Trp Glu Ile Ser Lys Ala Gln Leu Pro Lys Glu Glu Leu
E--> 536      290         295         300
538      Glu Ile Val Val Ile Leu Glu Gly Ile Val Glu Ala Thr Gly Met Thr
E--> 539      305         310         315         320
541      Cys Gln Ala Arg Ser Tyr Ile Thr Ser Glu Ile Leu Trp Gly Tyr
E--> 542      325         330         335
544      Arg Phe Thr Pro Val Leu Thr Met Glu Asp Gly Phe Tyr Glu Val Asp
E--> 545      340         345         350
547      Tyr Asn Ser Phe His Glu Thr Tyr Glu Thr Ser Thr Pro Ser Leu Ser
E--> 548      355         360         365
550      Ala Lys Glu Leu Ala Glu Leu Ala Asn Arg Ala Glu Val Pro Leu Ser
E--> 551      370         375         380

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RAW SEQUENCE LISTING DATE: 09/08/2000
PATENT APPLICATION: US/09/039,927A TIME: 12:15:07

Input Set : A:\A63098.app
Output Set: N:\CRF3\09082000\I039927A.raw

553	Trp	Ser	Val	Ser	Ser	Lys	Leu	Asn	Gln	His	Ala	Glu	Leu	Glu	Thr	Glu	
E--> 554	385					390					395					400	
556	Glu	Glu	Glu	Lys	Asn	Pro	Glu	Glu	Leu	Thr	Glu	Arg	Asn	Gly			
E--> 557					405					410							

VERIFICATION SUMMARY DATE: 09/08/2000
PATENT APPLICATION: US/09/039,927A TIME: 12:15:08

Input Set : A:\A63098.app
Output Set: N:\CRF3\09082000\I039927A.raw

L:30 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:31 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:503 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4
M:332 Repeated in SeqNo=4

RAW SEQUENCE LISTING DATE: 09/12/2000
 PATENT APPLICATION: US/09/039,927A TIME: 10:36:12

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\09122000\I039927A.raw

SEQUENCE LISTING

```

4 (1) GENERAL INFORMATION:
6   (i) APPLICANT: Lester, Henry A.
7       Davidson, Norman
8       Kofuji, Paulo
10  (ii) TITLE OF INVENTION: INWARD RECTIFIER, G-PROTEIN ACTIVATED,
11       MAMMALIAN, POTASSIUM CHANNELS AND USES THEREOF
13  (iii) NUMBER OF SEQUENCES: 6
15  (iv) CORRESPONDENCE ADDRESS:
16       (A) ADDRESSEE: Flehr Hohbach Test Albritton & Herbert LLP
17       (B) STREET: Four Embarcadero Center, Suite 3400
18       (C) CITY: San Francisco
19       (D) STATE: California
20       (E) COUNTRY: United States
21       (F) ZIP: 94111-4187
23  (v) COMPUTER READABLE FORM:
24       (A) MEDIUM TYPE: Floppy disk
25       (B) COMPUTER: IBM PC compatible
26       (C) OPERATING SYSTEM: PC-DOS/MS-DOS
27       (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
29  (vi) CURRENT APPLICATION DATA:
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C--> 31       (B) FILING DATE: 16-Mar-1998
32       (C) CLASSIFICATION:
33
34  (vii) PRIOR APPLICATION DATA:
35       (A) APPLICATION NUMBER: US 08/066,371
36       (B) FILING DATE: 21-MAR-1993
37
38       (A) APPLICATION NUMBER: US 08/614,801
39       (B) FILING DATE: 07-MAR-1996
40
41  (viii) ATTORNEY/AGENT INFORMATION:
42       (A) NAME: Trecartin, Richard F.
43       (B) REGISTRATION NUMBER: 31,801
44       (C) REFERENCE/DOCKET NUMBER: A-63098-1/RFT
45
46  (ix) TELECOMMUNICATION INFORMATION:
47       (A) TELEPHONE: (415) 781-1989
48       (B) TELEFAX: (415) 398-3249
49       (C) TELEX: 910 277299
50
52 (2) INFORMATION FOR SEQ ID NO: 1:
53   (i) SEQUENCE CHARACTERISTICS:
54       (A) LENGTH: 2070 base pairs
55       (B) TYPE: nucleic acid
56       (C) STRANDEDNESS: unknown
57       (D) TOPOLOGY: unknown
58
59   (ii) MOLECULE TYPE: DNA (genomic)
60
61   (ix) FEATURE:
62       (A) NAME/KEY: CDS
63       (B) LOCATION: 32..1534
64
65

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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/039,927A

DATE: 09/12/2000
 TIME: 10:36:12

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\09122000\I039927A.raw

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67 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
68 GGCACGAGAA TCTGGATCTC CCCTCCGTAT T ATG TCT GCA CTC CGA AGG AAA 52
69 Met Ser Ala Leu Arg Arg Lys
70
71 1
72 TTT GGG GAC GAT TAC CAG GTA GTG ACC ACT TCG TCC AGC GGT TCG GGC 100
73 Phe Gly Asp Asp Tyr Gln Val Val Thr Thr Ser Ser Ser Gly Ser Gly
74 10 15 20
75 TTG CAG CCC CAG GGG CCA GGA CAG GGC CCA CAG CAG CTT GTA CCC 148
76 Leu Gln Pro Gln Gly Pro Gly Gln Gly Pro Gln Gln Gln Leu Val Pro
77 25 30 35
78 AAG AAG AAA CGG CAG CGG TTC GTG GAC AAG AAC GGT CGG TGC AAT GTG 196
79 Lys Lys Lys Arg Gln Arg Phe Val Asp Lys Asn Gly Arg Cys Asn Val
80 40 45 50 55
81 CAG CAC GGC AAC CTG GGC AGC GAG ACC AGT CGC TAC CTT TCC GAC CTC 244
82 Gln His Gly Asn Leu Gly Ser Glu Thr Ser Arg Tyr Leu Ser Asp Leu
83 60 65 70
84 TTC ACT ACC CTG GTG GAT CTC AAG TGG CGT TGG AAC CTC TTT ATC TTC 292
85 Phe Thr Thr Leu Val Asp Leu Lys Trp Arg Trp Asn Leu Phe Ile Phe
86 75 80 85
87 ATC CTC ACC TAC ACC GTG GCC TGG CTC TTC ATG GCG TCC ATG TGG TGG 340
88 Ile Leu Thr Tyr Thr Val Ala Trp Leu Phe Met Ala Ser Met Trp Trp
89 90 95 100
90 GTG ATC GCT TAT ACC CGG GGC GAC CTG AAC AAA GCC CAT GTC GGC AAC 388
91 Val Ile Ala Tyr Thr Arg Gly Asp Leu Asn Lys Ala His Val Gly Asn
92 105 110 115
93 TAC ACT CCC TGT GTG GCC AAT GTC TAT AAC TTC CCC TCT GCC TTC CTT 436
94 Tyr Thr Pro Cys Val Ala Asn Val Tyr Asn Phe Pro Ser Ala Phe Leu
95 120 125 130 135
96 TTC TTC ATC GAG ACC GAG GCC ACC ATC GGC TAT GGC TAC CGC TAC ATC 484
97 Phe Phe Ile Glu Thr Glu Ala Thr Ile Gly Tyr Gly Tyr Arg Tyr Ile
98 140 145 150
99 ACC GAC AAG TGC CCC GAG GGC ATC ATC CTT TTC CTT TTC CAG TCC ATC 532
100 Thr Asp Lys Cys Pro Glu Gly Ile Ile Leu Phe Leu Phe Gln Ser Ile
101 155 160 165
102 CTT GGC TCC ATC GTG GAC GCT TTC CTC ATC GGC TGC ATG TTC ATC AAG 580
103 Leu Gly Ser Ile Val Asp Ala Phe Leu Ile Gly Cys Met Phe Ile Lys
104 170 175 180
105 ATG TCC CAG CCC AAA AAG CGC GCC GAG ACC CTC ATG TTT AGC GAG CAT 628
106 Met Ser Gln Pro Lys Lys Arg Ala Glu Thr Leu Met Phe Ser Glu His
107 185 190 195
108 GCG GTT ATT TCC ATG AGG GAC GGA AAA CTC ACT CTC ATG TTC CGG GTG 676
109 Ala Val Ile Ser Met Arg Asp Gly Lys Leu Thr Leu Met Phe Arg Val
110 200 205 210 215
111 GGC AAC CTG CGC AAC AGC CAC ATG GTC TCC GCG CAG ATC CGC TGC AAG 724
112 Gly Asn Leu Arg Asn Ser His Met Val Ser Ala Gln Ile Arg Cys Lys
113 220 225 230
114 CTG CTC AAA TCT CGG CAG ACA CCT GAG GGT GAG TTT CTA CCC CTT GAC 772
115 Leu Leu Lys Ser Arg Gln Thr Pro Glu Gly Glu Phe Leu Pro Leu Asp
116 235 240 245
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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/039,927A
 DATE: 09/12/2000
 TIME: 10:36:12

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\09122000\I039927A.raw

133	CAA CTT GAA CTG GAT GTA GGT TTT AGT ACA GGG GCA GAT CAA CTT TTT	820
134	Gln Leu Glu Leu Asp Val Gly Phe Ser Thr Gly Ala Asp Gln Leu Phe	
135	250 255 260	
137	CTT GTG TCC CCT CTC ACC ATT TGC CAC GTG ATC GAT GCC AAA AGC CCC	868
138	Leu Val Ser Pro Leu Thr Ile Cys His Val Ile Asp Ala Lys Ser Pro	
139	265 270 275	
141	TTT TAT GAC CTA TCC CAG CGA AGC ATG CAA ACT GAA CAG TTC GAG GTG	916
142	Phe Tyr Asp Leu Ser Gln Arg Ser Met Gln Thr Glu Gln Phe Glu Val	
143	280 285 290 295	
145	GTC GTC ATC CTG GAA GGC ATC GTG GAA ACC ACA GGG ATG ACT TGT CAA	964
146	Val Val Ile Leu Glu Gly Ile Val Glu Thr Thr Gly Met Thr Cys Gln	
147	300 305 310	
149	GCT CGA ACA TCA TAC ACC GAA GAT GAA GTT CTT TGG GGT CAT CGT TTT	1012
150	Ala Arg Thr Ser Tyr Thr Glu Asp Glu Val Leu Trp Gly His Arg Phe	
151	315 320 325	
153	TTC CCT GTA ATT TCT TTA GAA GAA GGA TTC TTT AAA GTC GAT TAC TCC	1060
154	Phe Pro Val Ile Ser Leu Glu Glu Gly Phe Phe Lys Val Asp Tyr Ser	
155	330 335 340	
157	CAG TTC CAT GCA ACC TTT GAA GTC CCC ACC CCT CCG TAC AGT GTG AAA	1108
158	Gln Phe His Ala Thr Phe Glu Val Pro Thr Pro Tyr Ser Val Lys	
159	345 350 355	
161	GAG CAG GAA GAA ATG CTT CTC ATG TCT TCC CCT TTA ATA GCA CCA GCC	1156
162	Glu Gln Glu Glu Met Leu Leu Met Ser Ser Pro Leu Ile Ala Pro Ala	
163	360 365 370 375	
165	ATA ACC AAC AGC AAA GAA AGA CAC AAT TCT GTG GAG TGC TTA GAT GGA	1204
166	Ile Thr Asn Ser Lys Glu Arg His Asn Ser Val Glu Cys Leu Asp Gly	
167	380 385 390	
169	CTA GAT GAC ATT AGC ACA AAA CTT CCA TCG AAG CTG CAG AAA ATT ACG	1252
170	Leu Asp Asp Ile Ser Thr Lys Leu Pro Ser Lys Leu Gln Lys Ile Thr	
171	395 400 405	
173	GGG AGA GAA GAC TTT CCC AAA AAA CTC CTG AGG ATG AGT TCT ACA ACT	1300
174	Gly Arg Glu Asp Phe Pro Lys Lys Leu Leu Arg Met Ser Ser Thr Thr	
175	410 415 420	
177	TCA GAA AAA GCC TAT AGT TTG GGT GAT TTG CCC ATG AAA CTC CAA CGA	1348
178	Ser Glu Lys Ala Tyr Ser Leu Gly Asp Leu Pro Met Lys Leu Gln Arg	
179	425 430 435	
181	ATA AGT TCG GTT CCT GGC AAC TCT GAA GAA AAA CTG GTA TCT AAA ACC	1396
182	Ile Ser Ser Val Pro Gly Asn Ser Glu Glu Lys Leu Val Ser Lys Thr	
183	440 445 450 455	
185	ACC AAG ATG TTA TCA GAT CCC ATG AGC CAG TCT GTG GCC GAT TTG CCA	1444
186	Thr Lys Met Leu Ser Asp Pro Met Ser Gln Ser Val Ala Asp Leu Pro	
187	460 465 470	
189	CCG AAG CTT CAA AAG ATG GCT GGA GGA CCT ACC AGG ATG GAA GGG AAT	1492
190	Pro Lys Leu Gln Lys Met Ala Gly Gly Pro Thr Arg Met Glu Gly Asn	
191	475 480 485	
193	CTT CCA GCC AAA CTA AGA AAA ATG AAC TCT GAC CGC TTC ACA	1534
194	Leu Pro Ala Lys Leu Arg Lys Met Asn Ser Asp Arg Phe Thr	
195	490 495 500	
197	TAGCAAAACA CCCCATAGG CATTATTTC TGTTTTGATT TAGTTTGTAGT CCAATATTG	1594

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/039,927A

DATE: 09/12/2000
 TIME: 10:36:12

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\09122000\I039927A.raw

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199 GCTGATAAGA TAATCCTCCC CGGGAAATCT GAGAGGTCTA TCCCAGTCTG GCAAATTCAT 1654
201 CAGAGGACTC TTCATTGAAG TGTGTTACT GTGTGAACA TGAGTTACAA AGGGAGGACA 1714
203 TCATAAGAAA GCTAATAGTT GGCATGTATT ATCACATCAA GCATGCAATA ATGTGCAAAT 1774
205 TTTGCATTTA GTTTTCTGGC ATGATTTATA TATGGCATAT TTATATTGAA TATCTGGAA 1834
207 AAATATATAA ATATATATTT GAAGTGGAGA TATTCTCCCC ATAATTCTA ATATATGTAT 1894
209 TAAGCCAAAC ATGAGTGGAT AGCTTTCAGG GCACTAAAAT AATATACATG CATAACATACA 1954
211 TACATGCATA TGCACAGACA CATAACACACA CATACTCATA TATATAAAAC ATACCCATAC 2014
213 AAACATATAT ATCTAATAAA AATTGTGATG TTTTGTTCAA AAAAAAAAAA AAAAAA 2070

216 (2) INFORMATION FOR SEQ ID NO: 2:
218 (i) SEQUENCE CHARACTERISTICS:
219 (A) LENGTH: 501 amino acids
220 (B) TYPE: amino acid
221 (D) TOPOLOGY: linear
223 (ii) MOLECULE TYPE: protein
225 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
227 Met Ser Ala Leu Arg Arg Lys Phe Gly Asp Asp Tyr Gln Val Val Thr
228 1 5 10 15
230 Thr Ser Ser Ser Gly Ser Gly Leu Gln Pro Gln Gly Pro Gly Gln Gly
231 20 25 30
233 Pro Gln Gln Gln Leu Val Pro Lys Lys Lys Arg Gln Arg Phe Val Asp
234 35 40 45
236 Lys Asn Gly Arg Cys Asn Val Gln His Gly Asn Leu Gly Ser Glu Thr
237 50 55 60
239 Ser Arg Tyr Leu Ser Asp Leu Phe Thr Thr Leu Val Asp Leu Lys Trp
240 65 70 75 80
242 Arg Trp Asn Leu Phe Ile Phe Ile Leu Thr Tyr Thr Val Ala Trp Leu
243 85 90 95
245 Phe Met Ala Ser Met Trp Trp Val Ile Ala Tyr Thr Arg Gly Asp Leu
246 100 105 110
248 Asn Lys Ala His Val Gly Asn Tyr Thr Pro Cys Val Ala Asn Val Tyr
249 115 120 125
251 Asn Phe Pro Ser Ala Phe Leu Phe Phe Ile Glu Thr Glu Ala Thr Ile
252 130 135 140
254 Gly Tyr Gly Tyr Arg Tyr Ile Thr Asp Lys Cys Pro Glu Gly Ile Ile
255 145 150 155 160
257 Leu Phe Leu Phe Gln Ser Ile Leu Gly Ser Ile Val Asp Ala Phe Leu
258 165 170 175
260 Ile Gly Cys Met Phe Ile Lys Met Ser Gln Pro Lys Lys Arg Ala Glu
261 180 185 190
263 Thr Leu Met Phe Ser Glu His Ala Val Ile Ser Met Arg Asp Gly Lys
264 195 200 205
266 Leu Thr Leu Met Phe Arg Val Gly Asn Leu Arg Asn Ser His Met Val
267 210 215 220
269 Ser Ala Gln Ile Arg Cys Lys Leu Leu Lys Ser Arg Gln Thr Pro Glu
270 225 230 235 240
272 Gly Glu Phe Leu Pro Leu Asp Gln Leu Glu Leu Asp Val Gly Phe Ser
273 245 250 255
275 Thr Gly Ala Asp Gln Leu Phe Leu Val Ser Pro Leu Thr Ile Cys His
276 260 265 270

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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/039,927A
 DATE: 09/12/2000
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Input Set : A:\Pto.amc
 Output Set: N:\CRF3\09122000\I039927A.raw

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278 Val Ile Asp Ala Lys Ser Pro Phe Tyr Asp Leu Ser Gln Arg Ser Met
279      275      280      285
281 Gln Thr Glu Gln Phe Glu Val Val Val Ile Leu Glu Gly Ile Val Glu
282      290      295      300
284 Thr Thr Gly Met Thr Cys Gln Ala Arg Thr Ser Tyr Thr Glu Asp Glu
285      305      310      315      320
287 Val Leu Trp Gly His Arg Phe Phe Pro Val Ile Ser Leu Glu Glu Gly
288      325      330      335
290 Phe Phe Lys Val Asp Tyr Ser Gln Phe His Ala Thr Phe Glu Val Pro
291      340      345      350
293 Thr Pro Pro Tyr Ser Val Lys Glu Gln Glu Glu Met Leu Leu Met Ser
294      355      360      365
296 Ser Pro Leu Ile Ala Pro Ala Ile Thr Asn Ser Lys Glu Arg His Asn
297      370      375      380
299 Ser Val Glu Cys Leu Asp Gly Leu Asp Asp Ile Ser Thr Lys Leu Pro
300      385      390      395      400
302 Ser Lys Leu Gln Lys Ile Thr Gly Arg Glu Asp Phe Pro Lys Lys Leu
303      405      410      415
305 Leu Arg Met Ser Ser Thr Thr Ser Glu Lys Ala Tyr Ser Leu Gly Asp
306      420      425      430
308 Leu Pro Met Lys Leu Gln Arg Ile Ser Ser Val Pro Gly Asn Ser Glu
309      435      440      445
311 Glu Lys Leu Val Ser Lys Thr Thr Lys Met Leu Ser Asp Pro Met Ser
312      450      455      460
314 Gln Ser Val Ala Asp Leu Pro Pro Lys Leu Gln Lys Met Ala Gly Gly
315      465      470      475      480
317 Pro Thr Arg Met Glu Gly Asn Leu Pro Ala Lys Leu Arg Lys Met Asn
318      485      490      495
320 Ser Asp Arg Phe Thr
321      500

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(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1978 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:

- (A) NAME/KEY: CDS
- (B) LOCATION: 488..1729

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

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337 GTCTCCCTGC AAGGTCTATC ACTTTGCTCC TAAACGAGGA TTTATTCCCT CTGCCACTCA      60
339 AGGCTGTCCC CCAGTTTCCT CGCAACCGGG CTTCCTCCTC AGTCCCTGCC CACACGCGCA      120
341 CTCCTCTGCC CCGCGGTGGC CCCAGCGCCC AGCCCTCCAG CCAGAGGGAG CCAGGCACCA      180
343 GACGGCAGCA CCTGGCTGGA GAGGTGGGCG GGGCCGAGGG TGGGGATCCG CGGGAACCGG      240
345 CGAGTCGGAG CTGGAGCAGG AGCTGGACCC AACCCTAGC AGCAGAATGG AGTCTCCTGA      300
347 AAGCCTGCCG GGGCTGATGT GAAATTGGGC CATCTGCTTC CAGTTGGTCT GTTTCCTCCT      360
349 TTTCTTGAT TTTCTTCCT CGCCATTCAC CGTGGAGTGA ATTATTGAAT CTTGCTCCGT      420
351 TCCGAGAGAG GCGATCAGGA TGGAGTGAAC CTACCTGTGC CACTACAAGG AAAAGCACAA      480
353

```

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/039,927A

DATE: 09/12/2000
TIME: 10:36:13

Input Set : A:\Pto.amc
Output Set: N:\CRF3\09122000\I039927A.raw

L:30 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:31 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]